



KENCRO

CHEMICALS

POTASSIUM HYDROXIDE SOLID

MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY INFORMATION

PRODUCT IDENTIFIER: POTASSIUM HYDROXIDE, SOLID; CAUSTIC POTASH (SOLID FLAKE)
PRODUCT USE: VARIOUS
CHEMICAL FAMILY: HYDROXIDE
SUPPLIER'S NAME AND ADDRESS: KENCRO CHEMICALS LIMITED
2172 WYECROFT RD., UNIT #4
OAKVILLE, ON
L6L 5V6
905-827-4133
24 HR. EMERGENCY NUMBER: 613-996-6666 (CANUTEC)

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS	C.A.S. #	WT.%	LC50	LD50	DERMAL
				ORAL	
POTASSIUM HYDROXIDE	1310-58-3	89.5% MIN.	N/AV.	365 MG/KG (RAT)	N/AV.
SODIUM HYDROXIDE	1310-73-2	1% MAX.	N/AV.	140-340 MG/KG (RAT)	1350 MG/KG (RABBIT)

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

CAN CAUSE BURNS TO SKIN, SEVERE BURNS TO EYES.
HARMFUL IF SWALLOWED OR INHALED.

SIGNS AND SYMPTOMS OF SHORT-TERM EXPOSURE:

SKIN CONTACT: PROLONGED CONTACT MAY CAUSE BURNS. CAUSES IRRITATION. SKIN INFLAMMATION IS CHARACTERIZED BY ITCHING, SCALING, REDDENING OR OCCASIONALLY BLISTERING.

SKIN ABSORPTION: N/AV.

EYE CONTACT: EXTREMELY HAZARDOUS IN THE CASE OF EYE CONTACT (IRRITANT). CORROSIVE TO EYES. MAY CAUSE BLINDNESS, SEVERE BURNS. CAUSES CORNEAL INJURY.

INHALATION: HARMFUL IF INHALED (LUNG IRRITANT). INHALATION OF DUST WILL PRODUCE IRRITATION TO GASTROINTESTINAL OR RESPIRATORY TRACT, CHARACTERIZED BY BURNING, SNEEZING AND COUGHING. OVER-EXPOSURE BY INHALATION MAY CAUSE RESPIRATORY IRRITATION.

INGESTION: EXTREMELY HAZARDOUS IN CASE OF INGESTION. MAY BE FATAL IF SWALLOWED. MAY CAUSE BURNS TO MOUTH, THROAT AND STOMACH.

POTENTIAL CHRONIC HEALTH EFFECTS:
REPEATED EXPOSURE OF THE EYES TO A LOW LEVEL OF DUST CAN PRODUCE EYE IRRITATION. REPEATED SKIN EXPOSURE CAN PRODUCE LOCAL SKIN DESTRUCTION, OR DERMATITIS. REPEATED INHALATION OF DUST CAN PRODUCE VARYING DEGREE OF RESPIRATORY IRRITATION OR LUNG DAMAGE. MAY LEAD TO CHRONIC RESPIRATORY IRRITATION.

OTHER IMPORTANT HAZARDS:
SEVERE OVER-EXPOSURE CAN PRODUCE LUNG DAMAGE, CHOKING, UNCONSCIOUSNESS OR DEATH.

SECTION 4: FIRST AID MEASURES

INHALATION: REMOVE VICTIM TO FRESH AIR. IF NOT BREATHING QUALIFIED PERSONNEL SHOULD ADMINISTER ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN.

SKIN CONTACT: IMMEDIATELY FLUSH WITH LARGE AMOUNTS OF WATER, FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING. GET MEDICAL ATTENTION IMMEDIATELY.

EYE CONTACT: GET MEDICAL ATTENTION IMMEDIATELY. IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 20 MINUTES, LIFTING UPPER AND LOWER EYELIDS.

INGESTION: GET MEDICAL ATTENTION IMMEDIATELY. IF CONSCIOUS, GIVE SEVERAL GLASSES OF WATER. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

SECTION 5: FIRE FIGHTING MEASURES

FIRE HAZARDS/CONDITION OF FLAMMABILITY:

NOT FLAMMABLE. PRODUCES EXPLOSIVE HYDROGEN MIXTURES IN CONTACT WITH MOST METALS.

FLASH POINT: NON-FLAMMABLE
FLASH POINT METHOD: N/AP. **AUTO IGNITION TEMPERATURE:** N/AP.
LOWER FLAMMABLE LIMIT: N/AP. **UPPER FLAMMABLE LIMIT:** N/AP.
(% BY VOL.) (% BY VOL.)
OXIDIZING PROPERTIES: N/AV.
FLAME PROJECTION LENGTH: N/AP.
EXPLOSION DATA: SENSITIVITY TO MECHANICAL IMPACT/STATIC DISCHARGE IS NOT EXPECTED

SUITABLE EXTINGUISHING MEDIA:

DRY CHEMICAL POWDER, WATER SPRAY, CHEMICAL FOAM.

SPECIAL FIRE-FIGHTING PROCEDURES/EQUIPMENT:

SELF-CONTAINED BREATHING APPARATUS REQUIRED. FIREFIGHTERS SHOULD WEAR THE USUAL PROTECTIVE GEAR.

HAZARDOUS COMBUSTION PRODUCTS:

AMMONIA. HYDROGEN GAS WHEN IN CONTACT WITH INCOMPATIBLE METALS. SOME METALLIC OXIDES. EMIT TOXIC FUMES K_2O WHEN HEATED.

SECTION 6: ACCIDENTAL RELEASE MEASURES

LEAK AND SPILL PROCEDURES:

SMALL SPILL: USE APPROPRIATE TOOLS TO PUT THE SPILLED SOLID IN A CONVENIENT WASTE DISPOSAL CONTAINER. IF NECESSARY: NEUTRALIZE THE RESIDUE WITH A DILUTE SOLUTION OF ACETIC ACID.

LARGE SPILL: CORROSIVE SOLID. STOP LEAK IF WITHOUT RISK. SOAK UP WITH SAND OR EARTH. PREVENT ENTRY INTO DRAINS, SEWERS AND OTHER WATERWAYS. DO NOT GET WATER INSIDE CONTAINER. VENTILATE AREA. DIKE IF NEEDED. WEAR APPROPRIATE PROTECTIVE EQUIPMENT. AVOID GENERATING AIRBORN DUST. IF NECESSARY NEUTRALIZE RESIDUE WITH A DILUTE SOLUTION OF ACETIC ACID. COLLECT MATERIAL FOR PROPER DISPOSAL, CALL FOR ASSISTANCE ON DISPOSAL. BE CAREFUL THAT THE PRODUCT IS NOT PRESENT AT LEVELS ABOVE THRESHOLD LEVEL (TLV) . CHECK TLV ON MSDS (SEE SECTION 8) AND WITH LOCAL AUTHORITIES.

SECTION 7: HANDLING AND STORAGE

SAFE HANDLING PROCEDURES:

USE ADEQUATE VENTILATION. WASH THOROUGHLY AFTER USING, PARTICULARLY BEFORE EATING OR SMOKING. WEAR PERSONAL PROTECTIVE EQUIPMENT APPROPRIATE TO TASK. AVOID CONTACT WITH SKIN, EYES AND CLOTHING. DO NOT TAKE INTERNALLY. AVOID GENERATING OR BREATHING DUST. LAUNDRER CONTAMINATED CLOTHING PRIOR TO REUSE.

STORAGE REQUIREMENTS:

STORE AWAY FROM INCOMPATIBLE MATERIALS. KEEP CONTAINER TIGHTLY CLOSED. STORE IN A COOL, DRY AND WELL VENTILATED AREA.

INCOMPATIBLE MATERIALS:

ACIDS, ALUMINUM, MAGNESIUM, ZINC, TIN, AMMONIUM SALTS, ENAMEL.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE LIMITS

INGREDIENTS	ACGIH	OSHA PEL	
	TLV	PEL	STEL
POTASSIUM HYDROXIDE	CL 2 MG/M ³	N/AV.	N/AV.
SODIUM HYDROXIDE	2 MG/M ³ (CL)	N/AV.	N/AV.

SEE COMPOSITION/INFORMATION ON INGREDIENTS, SECTION 2.

ENGINEERING CONTROLS: USE PROCESS ENCLOSURES, LOCAL EXHAUST VENTILATION; OR OTHER ENGINEERING CONTROLS TO KEEP AIRBORNE LEVELS BELOW RECOMMENDED EXPOSURE LIMITS. IF USER OPERATIONS GENERATE DUST, FUME OR MIST, USE VENTILATION TO KEEP AIRBORNE CONTAMINANTS BELOW THE EXPOSURE LIMIT.

GLOVES/TYPE: CHEMICAL RESISTANT GLOVES

RESPIRATORY/TYPE: IF TLV IS EXCEEDED, WEAR A NIOSH APPROVED MIST/DUST RESPIRATOR.

EYE/TYPE: CHEMICAL SAFETY GOGGLES

FOOTWEAR/TYPE: SAFETY BOOTS PER LOCAL REGULATIONS

CLOTHING/TYPE: WEAR ADEQUATE PROTECTIVE CLOTHING

OTHER/TYPE: EYE WASH AND EMERGENCY SHOWER FACILITY SHOULD BE IN CLOSE PROXIMITY.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	SOLID	APPEARANCE:	WHITE FLAKES
ODOUR:	ODOURLESS	ODOUR THRESHOLD:	N/AP.
PH:	14	BOILING POINT:	1327°C @ 1013 hPa
SPECIFIC GRAVITY:	2.044G/CM3 @ 20°C	MELTING/FREEZING POINT:	406°C
COEFFICIENT OF WATER/OIL DISTRIBUTION:	N/AV.	SOLUBILITY IN WATER:	121G/100G H ₂ O @ 25°C
EVAPOURATION RATE:	N/AV.	VAPOUR DENSITY (AIR=1):	N/AV.
MOLECULAR WEIGHT:	56.10		
MOLECULAR FORMULA:	KOH		

SECTION 10: REACTIVITY AND STABILITY DATA

STABILITY AND REACTIVITY:

STABLE UNDER NORMAL CONDITIONS, NOT STABLE AROUND MOISTURE OR CO₂ FROM THE AIR.

CONDITIONS TO AVOID: CONTACT WITH INCOMPATIBLE SUBSTANCES. AVOID TEMPERATURES ABOVE 84°C.

HAZARDOUS DECOMPOSITION PRODUCTS:

AMMONIA. HYDROGEN GAS WHEN IN CONTACT WITH INCOMPATIBLE METALS.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL DATA: SEE SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS.

CARCINOGENIC STATUS: NOT LISTED AS A CARCINOGEN.

REPRODUCTIVE EFFECTS: NO EFFECTS REPORTED

TERATOGENICITY: NO EFFECTS REPORTED

MUTAGENICITY: NO EFFECTS REPORTED

SENSITIZATION TO MATERIAL: N/AV.

SYNERGISTIC MATERIALS: N/AV.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

PRE-EXISTING SKIN AND RESPIRATORY DISORDERS MAY BE MORE SUSCEPTIBLE TO THE EFFECTS OF EXPOSURE TO THIS MATERIAL.

ADDITIONAL HEALTH HAZARDS:

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL EFFECTS:

THIS MATERIAL HAS EXHIBITED SLIGHT TOXICITY TO TERRESTRIAL ORGANISMS.

IMPORTANT ENVIRONMENTAL CHARACTERISTICS:

BIODEGRADATION: THIS MATERIAL WILL DISASSOCIATE INTO IONIC FORM IN THE AQUATIC ENVIRONMENT.

NATURAL CARBON DIOXIDE WILL SLOWLY NEUTRALIZE THIS MATERIAL.

BIOCONCENTRATION: THIS MATERIAL WILL NOT BIOCONCENTRATE.

ECOTOXICITY:

AQUATIC TOXICITY: THIS MATERIAL IS ALKALINE AND MAY RAISE THE PH OF SURFACE WATER WITH LOW BUFFERING CAPACITY. THIS MATERIAL HAS EXHIBITED MODERATE TOXICITY TO AQUATIC ORGANISMS.

FRESH WATER FISH TOXICITY: LC50 (MOSQUITO FISH): 80 MG/L/96HR (STATIC BIOASSAY IN FRESH WATER AT 18-19°C. LC 50 (FATHEAD MINNOW): 179 MG/L/96HR (STATIC AT 22.3-24.7°C.

INVERTEBRATE TOXICITY: EC50 (DAPHNIA MAGNA): 60 MG/L/48HR (STATIC BIOASSAY AT 20.3-20.7°C

ALGAE TOXICITY: ErC50 (SELENASTRUM CAPRICORNUTUM): 61 MG/L/96HR (STATIC BIOASSAY AT 23-23.9°C

SECTION 13: DISPOSAL CONSIDERATIONS

HANDLING FOR DISPOSAL: KEEP CONTAINER DRY. KEEP AWAY FROM HEAT. KEEP AWAY FROM IGNITION SOURCES. EMPTY CONTAINERS POSE A FIRE RISK. EVAPORATE THE RESIDUE UNDER A FUME HOOD. GROUND ALL EQUIPMENT CONTAINING MATERIAL.

METHOD OF DISPOSAL: DISPOSE OF IN ACCORDANCE WITH LOCAL, PROVINCIAL AND FEDERAL REGULATIONS.

SECTION 14: TRANSPORTATION INFORMATION

PROPER SHIPPING NAME: POTASSIUM HYDROXIDE, SOLID

TDG CLASSIFICATION: CLASS 8, UN1813, PACKING GROUP II

SECTION 15: REGULATORY INFORMATION

WHMIS CLASSIFICATION: D1B: TOXIC MATERIAL THAT CAUSES IMMEDIATE AND SERIOUS EFFECTS,
E: CORROSIVE MATERIAL

SECTION 16: OTHER INFORMATION

LEGEND:	ACGIH	AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS
	CAS #	CHEMICAL ABSTRACTS SERVICE REGISTRY NUMBER
	LC	LETHAL CONCENTRATION
	LD	LETHAL DOSE
	N/AP.	NOT APPLICABLE
	N/AV.	NOT AVAILABLE
	NIOSH	NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH
	OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
	PEL	PERMISSIBLE EXPOSURE LIMIT
	STEL	SHORT TERM EXPOSURE LIMIT
	TDG	TRANSPORTATION OF DANGEROUS GOODS ACT/REGULATIONS
	TLV	THRESHOLD LIMIT VALUE
	TWA	TIME WEIGHTED AVERAGE
	WHMIS	WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM

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